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COCA LEAF, PUBLIC HEALTH, AND NARCOTICS CONTROL

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Excellent surveys of the medical and social effects of the habitual chewing of coca leaves are available. This paper will not add to their number. It is rather intended to show how the three parts of its title are interrelated, though such a clarification may seem to be no longer necessary since the Coca Enquiry Commission's clear statements, more than ten years ago.

That Commission's report, while stating the harmful effects of coca leaf chewing and recommending measures for its gradual suppression, said also that "it does not at present appear that the chewing of the coca leaf can be regarded as a drug addiction in the medical sense". This latter statement has occasionally given rise to certain misinterpretations. In order to understand it properly one will remember that in making it the Coca Enquiry Commission referred to the definition of drug addiction as formulated by the World Health Organization's Expert Committee on Addiction-Producing Drugs for the first time in 1950.

Today the term "drug addiction" must be understood in a broader sense than twelve years ago and, what is even more important, not as a narrowly circumscribed medical entity, viewing the individual only, but should also be seen in the light of the social implications, whether they are the causes or the effects of the chronic use of certain drugs. It is not easy to say what has contributed more to this change in the meaning of the term "drug addiction", whether it is the profound changes in structure and life of society and its attitude towards psychically active drugs, or the remarkable variety of addicting substances widely available today, the latter factor being in any case easier to understand. At the time of the first formulation of the "addiction" definition opium and opiates represented by far the largest and most widely misused group of drugs. Hence the definition visualized first and foremost these substances, all of which produce the well defined syndrome of physical dependence as a consequence of abrupt cessation (withdrawal) of their chronic administration. Thus, "physical dependence", which is easier to measure than other medical features mentioned in the definition, was considered a convenient and practical yardstick for the assessment of addictive qualities of a drug.

Meanwhile, many new types of drugs with interesting psychic effects have appeared, mostly as achievements of chemical synthesis, such as sedatives and hypnotics of barbiturate and other types, and stimulants of amphetamine type. Many of them are indeed capable of effects - on the individual as well as on society - which classify them as addiction-producing even if they do not fulfil the criterion of physical dependence. The Expert Committee and the United Nations Commission on Narcotic Drugs have recognized their dangers and recommended measures against their abuse. For the purpose of protecting society, they formulated such recommendations when the consequences of their misuse became evident.

In order to adjust the guide lines for its proper action to the changed aspects of narcotics control, the Expert Committee stated in its tenth report[1/] that "the primary criterion for the establishment and degree of control is liability to abuse, resulting in risk to the community". Consequently, pharmacological criteria such as physical dependence should not be considered as the sole and obligatory requirement for narcotics control. In the light of this new interpretation of the term drug addiction, the WHO Expert Committee's statement[2/] regarding the harmfulness of coca chewing cannot but be confirmed. The United Nations narcotics control organs have, in resolutions as well as treaty texts, supported this view.

When assessing the role of coca leaf chewing as a factor in lowering the standard of health it should be remembered that the constitution of the World Health Organization defines health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The constitution goes on to declare, "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition". "The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and States." The development of the Organization's programme has proved the usefulness of this broad concept of health and a good health policy is now considered vital for economic development.

1/ Wld Hlth Org. techn. Rep. Ser. 1960, 188, 10

2/ Wld Hlth Org. techn. Rep. Ser. 1952, 57, 10

The report of the Coca Enquiry Commission has made it abundantly clear - and more data collected since could be quoted in support - that the habit of chewing coca leaves is "connected with the extremely low standard of living of the Indian". The Commission's further statement that after a change of the general living conditions and improvement of nutritional conditions the habit tends to disappear has been confirmed in several instances.[3-4/]

As to the various factors connected with coca leaf chewing, perhaps most is known in regard to nutrition. The Enquiry Commission emphasized the need for improving the nutritional status of the coca chewing population as conditio sine qua non. During the decade since, thorough investigations have been made possible through international co-operation in many areas of Latin America with the purpose of analysing the nature of food deficiencies and supplementing them by suitable means. Thus, a meticulous survey of the living conditions of 1200 families has shown that both the variety of foodstuffs in coastal areas and the monotonous vegetarianism of the sierra are characterized by a marked preponderance of carbohydrates and very low content in protein and fat.[5/] The availability of fish flour as a cheap source of animal proteins might open new possibilities of improving the diet, and adequate food has, amongst other factors, indeed been shown to reduce the consumption of coca leaves for chewing purposes.

Coca leaves should not only be subjected to control measures because of their consumption as such (cocaism), but also as the raw material for cocaine. There can be little doubt that such control is essential for the prevention of the abuse of and addiction to cocaine (cocainism). It is also commonly held that control of agriculturally produced, often very bulky, raw materials such as the poppy plant or opium, and coca bush or leaf, presents still greater problems than the control of a well-defined substance such as morphine and cocaine. Many believe that, from the viewpoint of the efficiency of control, it would even be better to be, for legitimate

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3/ Wolff, P. O. (1949) Brit. J. Addict. 46, 66

4/ Verzar, F. (1955) Voeding, 16, 461

5/ Eddy, Halbach & Braenden, Bull. Wld Hlth Org. 1957, 17, 569

medical purposes, not dependent on substances manufactured from agricultural products, provided, of course, that the not agriculturally produced medicaments, i.e. drugs of purely synthetic origin, are at least as good. In the field of opium and its alkaloids this has been achieved. A large number of synthetic analgesics are available meeting all therapeutic needs.6/ Similarly it has been possible in many cases to replace cocaine, which at first was the only local anaesthetic, by a number of therapeutically valuable substances of synthetic origin, a trend which is reflected in the world statistics of cocaine consumption. It is not unthinkable that further progress in the synthesis of local anaesthetics will bring to light some day a substance which can replace cocaine for all medicinal purposes and is free from adverse effects, in particular that of addiction, which necessitates narcotics control measures.

6/ Ann. Facult. Med. 1960, 43, 287 (La Alimentacion y el estado de nutricion en el Peru)